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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,280	03/07/2000	Stephan Voges	EFIM0252	9230

31408 7590 05/19/2006

LAW OFFICE OF JAMES TROSINO
92 NATOMA STREET, SUITE 211
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EXAMINER

KISS, ERIC B

ART UNIT PAPER NUMBER

2192

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/521,280	VOGES ET AL.	
	Examiner	Art Unit	
	Eric B. Kiss	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5, 57 and 59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 57 and 59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The reply filed 10 February 2006 has been received and entered. Claims 1, 5, 57, and 59 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 5, 57, and 59 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 5, 57, and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Joe LoCicero and Donald E. Thomas, "A Multithreaded Multiple-Language Hardware/Software Cosimulator," 1997, Carnegie Mellon University, Research Report No. CMUCAD-97-34 (hereinafter [LoC1997]).

As per claim 1, [LoC1997] discloses providing a single executable program adapted to create a primary thread and a secondary thread, the primary thread running a simulation engine, the secondary thread running an interpreter that interprets a scripted routine comprising a user-defined call that is mapped to a simulation engine task (see, for example, section 3 on pp. 6-11, describing the cosimulation environment for Verilog and C++ code; see also the examples on pp. 16-18); providing a user-defined simulation engine function associated with the interpreter (see, for example, section 3 on pp. 6-11; see also the examples on pp. 16-18); upon encountering the user-defined function, passing control from the simulation engine to the interpreter to interpret the scripted routine (see, for example, pp. 7-8; see also the examples on pp. 16-18); and upon

Art Unit: 2192

encountering the user-defined call, passing control from the interpreter to the simulation engine (see, for example, pp. 7-8; see also the examples on pp. 16-18).

As per claim 5, [LoC1997] further discloses synchronizing the simulation engine and the interpreter via semaphores (see, for example, pp. 7-8; event-driven routines to conditionally suspend execution are provided as Verilog constructs and also in the user's C++ code, providing synchronization).

As per claim 57, [LoC1997] further discloses directly sharing variables between the simulation engine and the scripted routines (see, for example, p. 7, paragraph 2, continuing onto p. 8).

As per claim 59, [LoC1997] discloses providing a single executable program adapted to create a primary thread and one or more secondary threads, the primary thread running a simulation engine, the secondary threads running an interpreter that interprets a scripted routine comprising a user-defined call that is mapped to a simulation engine task (see, for example, section 3 on pp. 6-11, describing the cosimulation environment for Verilog and C++ code, where each segment of C++, encapsulated C, or converted Verilog that constitutes a coroutine is allocated a separate thread; see also the examples on pp. 16-18); providing a user-defined simulation engine function associated with the interpreter (see, for example, section 3 on pp. 6-11; see also the examples on pp. 16-18); upon encountering the user-defined function, passing control from the simulation engine to the interpreter to interpret the scripted routine (see, for example, pp. 7-8; see also the examples on pp. 16-18); and upon encountering the user-defined call, passing control from the interpreter to the simulation engine (see, for example, pp. 7-8; see also the examples on pp. 16-18).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be reached on alternate Mondays.


If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2192

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature should be directed to the TC 2100 Group receptionist: 571-272-2100.

EBK / *EBK*
May 8, 2006



TUAN DAM
SUPERVISORY PATENT EXAMINER